

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please cancel claims 28 to 48 without prejudice or disclaimer.

Please add new claims 49 to 66 as follows:

1 to 48 (cancelled)

49. (new) An isolated nucleic acid molecule encoding a BRCA1 protein comprising the amino acid sequence of SEQ ID NO: 4.

50. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 3.

51. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid molecule consists of the nucleotide sequence of SEQ ID NO: 3.

52. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid molecule comprises nucleotides 120 to 5,708 of SEQ ID NO: 3.

53. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid molecule consists of nucleotides 120 to 5,708 of SEQ ID NO: 3.

54. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid molecule encodes a BRCA1 protein consisting of the amino acid sequence of SEQ ID NO: 4.

55. (new) The isolated nucleic acid molecule of claim 49, wherein the nucleic acid molecule is operably linked to one or more expression control elements.

56. (new) A vector comprising an isolated nucleic acid molecule of claim 49.

57. (new) A host cell comprising the vector of claim 56.

58. (new) A host cell transformed to contain the nucleic acid molecule of claim 49.

59. (new) A host cell of claim 57 or 58, wherein said host is selected from the group consisting of prokaryotic hosts and eukaryotic hosts.

60. (new) A method for producing a polypeptide comprising culturing a host cell of claim 57 or 58 under *in vitro* conditions in which the protein encoded by the nucleic acid molecule is expressed.

61. (new) A method for producing a polypeptide comprising culturing a host cell containing a nucleic acid molecule encoding a BRCA1 protein comprising the amino acid sequence of SEQ ID NO: 4 under *in vitro* conditions in which the protein encoded by the nucleic acid molecule is expressed.

62. (new) The method of claim 61, wherein the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 3.

63. (new) The method of claim 61, wherein the nucleic acid molecule consists of the nucleotide sequence of SEQ ID NO: 3.

64. (new) The method of claim 61, wherein the nucleic acid molecule comprises nucleotides 120 to 5,708 of SEQ ID NO: 3.

65. (new) The method of claim 61, wherein the nucleic acid molecule consists of nucleotides 120 to 5,708 of SEQ ID NO: 3.

66. (new) The method of claim 61, wherein the nucleic acid molecule encodes a BRCA1 protein consisting of the amino acid sequence of SEQ ID NO: 4.